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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,738	03/04/2005	Jared S Timko	22188/06985	7877

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EXAMINER	
BASTIANELLI, JOHN	

ART UNIT	PAPER NUMBER
3753	

MAIL DATE	DELIVERY MODE
12/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/526,738	TIMKO ET AL.	
	Examiner	Art Unit	
	John Bastianelli	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *38-42,44,46-48,50-52,59-68 and 72-81* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *38-42,44,46-48,50-52,59-68 and 72-81* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/3/07,10/18/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Suggestion

1. Claim 78 has the following informalities: The word "trunnion" should be --trunnion--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 38-42, 44, 46, 50-51, 59, 66-67, 72, 76-77 and 79-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932.

Scaramucci disclose a valve 10 having a valve body 12 having a valve cavity therein; a valve element 64a for controlling flow through the valve based on a rotational position of the valve element about an axis, and a single piece packing 110 that surrounds said valve element and seals directly against said valve element within said valve cavity; wherein said valve element comprises a ball 82 and adjacent upper and lower cylindrical trunnions 148 and 152 extending from the ball; said lower cylindrical trunnion extending axially past a lowermost end of said packing; said valve cavity being dimensioned to closely receive said valve element. Scaramucci is silent as to the ratio D3/D1 of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the trunnion almost as wide as the ball D3/D1 of about .8 in order to make machining the valve element easier as less material would

need to be removed from the ball part of the valve to the trunnion. Scaramucci is silent as to the ratio of H/D4 of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing wider than taller H/D4 of about .8 in order to make the packing thicker to provide better sealing due to more compressible material around the point of contact of fluid flow and seal. The packing is seen as dimensioned "to be installed on said valve element with a room temperature range" of "about 65-100 degrees F" and this is product by process. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113). The valve element is seen as spherical in Fig. 4. The packing is an interference fit with the valve element. The term "when said packing is installed thereon prior to loading said packing within said valve cavity" is product by process. The packing is seen as dimensioned "to be installed on said valve element at a temperature below which said packing deforms" of "about room temperature" and this is product by processThe valve element has a ratio D3/D1 that facilitates assembly of the packing onto the valve element at room temperature. A stem 56 or 130 (Fig. 4) extending from the upper trunnion has a smaller diameter than the upper trunnion. The valve cavity has a reduced diameter counterbore sized to form a clearance fit between the lower trunnion and the counterbore that prevents a lower portion of the packing from extruding into the counter bore.

4. Alternatively, claims 38-42, 44, 46, 50-51, 59, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Moen US 3,192,943.

Scaramucci is silent as to the ratio of D3/D1 of about .8. Moen shows D3/D1 in which the ball is slightly larger than the trunnion with a ratio of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the trunnion of Scaramucci almost as wide as the ball D3/D1 of about .8 as disclosed by Moen in order to make machining the valve element easier as less material would need to be removed from the ball part of the valve to the trunnion.

5. Alternatively, claims 41-42, 46, 66-67, 72, 76-77 and 79-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Schmitt US 4,423,749. Scaramucci is silent as to the ratio of H/D4 of about .8. Schmitt shows H/D4 in which the packing is slightly wider than it is tall with a ratio of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci wider than taller H/D4 of about .8 as disclosed by Schmitt in order to make the packing thicker to provide better sealing due to more compressible material around the point of contact of fluid flow and seal.

6. Alternatively, claims 41-42, 46, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Moen US 3,192,943 in view of Schmitt US 4,423,749.

Scaramucci is silent as to the ratio of D3/D1 of about .8. Moen shows D3/D1 in which the ball is slightly larger than the trunnion with a ratio of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the trunnion of Scaramucci almost as wide as the ball D3/D1 of about .8 as disclosed by Moen in order to make machining the valve element easier as less material would need to be removed from the ball part

of the valve to the trunnion. Scaramucci is silent as to the ratio of H/D4 of about .8. Schmitt shows H/D4 in which the packing is slightly wider than it is tall with a ratio of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci wider than taller H/D4 of about .8 as disclosed by Schmitt in order to make the packing thicker to provide better sealing due to more compressible material around the point of contact of fluid flow and seal.

7. Claims 47-48, 52, 61-62, 68, 73-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Soria Vega US 5,595,206.

Scaramucci lacks the packing made of a plastic polymer of PTFE, polyethylene, or PFA. Soria Vega discloses the packing made of PTFE, polyethylene, or PFA. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci out of PTFE, polyethylene or PFA as disclosed by Soria Vega as these materials provide better corrosion resistance and easier turning of the valve.

8. Alternatively, claims 47-48, 52, and 61-62, are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Moen US 3,192,943 in view of Soria Vega US 5,595,206.

Scaramucci lacks the packing made of a plastic polymer of PTFE, polyethylene, or PFA. Soria Vega discloses the packing made of PTFE, polyethylene, or PFA. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci out of PTFE, polyethylene or PFA as disclosed by Soria Vega as these materials provide better corrosion resistance and easier turning of the valve.

9. Alternatively, claims 68 and 73-74, are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Schmitt US 4,423,749 in view of Soria Vega US 5,595,206.

Scaramucci lacks the packing made of a plastic polymer of PTFE, polyethylene, or PFA. Soria Vega discloses the packing made of PTFE, polyethylene, or PFA. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci out of PTFE, polyethylene or PFA as disclosed by Soria Vega as these materials provide better corrosion resistance and easier turning of the valve.

10. Claims 60, 65, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Kemp US 4,911,408.

Scaramucci lacks the packing being live loaded in a direction of axis of rotation. Kemp discloses live loading a packing in a direction of axis of rotation. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci live loaded as disclosed by Kemp in order to keep everything tight.

11. Alternatively, claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Moen US 3,192,943 in view of Kemp US 4,911,408.

Scaramucci lacks the packing being live loaded. Kemp discloses live loading a packing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci live loaded as disclosed by Kemp in order to keep everything tight.

12. Alternatively, claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Schmitt US 4,423,749 in view of Kemp US 4,911,408.

Scaramucci lacks the packing being live loaded. Kemp discloses live loading a packing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci live loaded as disclosed by Kemp in order to keep everything tight.

13. Claims 59, 63, 64 and 76-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Reed, Jr. US 3,066,909.

Scaramucci discloses a valve element for controlling flow through the valve based on a rotational position of the valve element about an axis, and a single piece packing that surrounds said valve element; and seals said valve element within said valve cavity; wherein said valve element comprises a ball and adjacent upper and lower cylindrical trunnions extending from the ball; a lower end of said single piece packing seals directly against said lower cylindrical trunnion; said lower cylindrical trunnion extending axially along said rotational axis past a lowermost end of said packing; said valve cavity including a reduced diameter counterbore being dimensioned to closely receive said lower cylindrical trunnion of said valve element. Scaramucci lacks the bottom of the lower trunnion spaced apart from the reduced counterbore. Reed discloses the bottom of the lower trunnion (bottom of 7) spaced apart from the reduced counterbore 13. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the lower trunnion of Scaramucci have a reduced counterbore that is spaced from the bottom end of the trunnion as disclosed by Reed in order to allow play in the axial direction in order to keep the valve from breaking if a large force happened to be provided in the downward direction.

14. Alternatively, claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Moen US 3,192,943 in view of Reed, Jr. US 3,066,909.Scaramucci is silent as to the ratio of D3/D1 of about .8. Moen shows D3/D1 in which the ball is slightly larger than the trunnion with a ratio of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the trunnion of Scaramucci almost as wide as the ball D3/D1 of about .8 as disclosed by Moen in order to make machining the valve element easier as less material would need to be removed from the ball part of the valve to the trunnion. Scaramucci lacks the bottom of the lower trunnion spaced apart from the reduced counterbore. Reed discloses the bottom of the lower trunnion (bottom of 7) spaced apart from the reduced counterbore 13. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the lower trunnion of Scaramucci have a reduced counterbore that is spaced from the bottom end of the trunnion as disclosed by Reed in order to allow play in the axial direction in order to keep the valve from breaking if a large force happened to be provided in the downward direction.

15. Alternatively, claims 76-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Schmitt US 4,423,749 in view of Reed, Jr. US 3,066,909.

Scaramucci is silent as to the ratio of H/D4 of about .8. Schmitt shows H/D4 in which the packing is slightly wider than it is tall with a ratio of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci wider than taller H/D4 of about .8 as disclosed by Schmitt in order to make the packing thicker to provide better sealing due to more compressible material around the point of

contact of fluid flow and seal. Scaramucci lacks the bottom of the lower trunnion spaced apart from the reduced counterbore. Reed discloses the bottom of the lower trunnion (bottom of 7) spaced apart from the reduced counterbore 13. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the lower trunnion of Scaramucci have a reduced counterbore that is spaced from the bottom end of the trunnion as disclosed by Reed in order to allow play in the axial direction in order to keep the valve from breaking if a large force happened to be provided in the downward direction.

16. Alternatively, claim 78 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scaramucci US 3,599,932 in view of Moen US 3,192,943 in view of Schmitt US 4,423,749 in view of Reed, Jr. US 3,066,909.

Scaramucci is silent as to the ratio of D3/D1 of about .8. Moen shows D3/D1 in which the ball is slightly larger than the trunnion with a ratio of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the trunnion of Scaramucci almost as wide as the ball D3/D1 of about .8 as disclosed by Moen in order to make machining the valve element easier as less material would need to be removed from the ball part of the valve to the trunnion. Scaramucci is silent as to the ratio of H/D4 of about .8. Schmitt shows H/D4 in which the packing is slightly wider than it is tall with a ratio of about .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci wider than taller H/D4 of about .8 as disclosed by Schmitt in order to make the packing thicker to provide better sealing due to more compressible material around the point of contact of fluid flow and seal. Scaramucci lacks the bottom of the lower trunnion spaced apart from the reduced counterbore. Reed discloses the bottom of the lower

trunnion (bottom of 7) spaced apart from the reduced counterbore 13. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the lower trunnion of Scaramucci have a reduced counterbore that is spaced from the bottom end of the trunnion as disclosed by Reed in order to allow play in the axial direction in order to keep the valve from breaking if a large force happened to be provided in the downward direction.

Response to Arguments

17. Applicant's arguments with respect to claims 38-42, 44, 46-48, 50-52, 59-68, and 72-81 have been considered but are moot in view of the new ground(s) of rejection.

18. The examiner would like to note that the examiner has provided sufficient motivation to do ratios D3/D1 and H/D4 with singular reference Scaramucci and multiple references with Moen for D3/D1 and/or Schmitt for H/D4. The examiner has provided Kemp to show live-loading. The examiner has provided Reed to show the axial gap and axial shifting.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Bastianelli whose telephone number is (571) 272-4921. The examiner can normally be reached on M-Th (8-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Bastianelli
Primary Examiner
Art Unit 3753

JB
December 6, 2007